

**HUNTERS POINT NAVAL SHIPYARD
BASE REALIGNMENT AND CLOSURE CLEANUP TEAM
MEETING MINUTES**

August 29, 2013

These minutes summarize the meeting of the Hunters Point Naval Shipyard (HPNS) Base Realignment and Closure (BRAC) Cleanup Team (BCT) held on August 29, 2013 at CH2M HILL's office in Oakland, California. Participants in the meeting included the BCT, which is made up of representatives from the U.S. Navy (Navy), the United States Environmental Protection Agency (USEPA), the California Department of Toxic Substances Control (DTSC), and the San Francisco Bay Regional Water Quality Control Board (Water Board). The City of San Francisco (City), its consultants, the Lennar team of developers, and Navy consultants also attended the meeting. The Navy participated remotely by telephone and web conferencing. These minutes describe the key points, decisions, and action items agreed to at the meeting. A list of attendees is included as Attachment A. The document review table is included as Attachment B. Action items from the meeting are included as Attachment C.

1.0 Navy Business/Action Items (Keith Forman, Navy)

Mr. Forman introduced Catherine Haran as the new Lead Remedial Project Manager for HPNS. Mr. Forman indicated that all of the July action items have been completed.

2.0 Radiological Program Update (Chris Yantos, Navy)

Parcel C Phase II Storm Drain and Sewer Removals and Ship Berth Surveys

- Phase II has removed approximately 13,000 linear feet of lines and 28,000 cubic yards of soil.
- At the Parcel C ship berths, the Navy is internally reviewing the data for Survey Unit 2 and awaiting definitive results at Survey Units 6 through 9; remediation is ongoing at Survey Units 1, 3, 4, and 5; and Survey Units 10 through 13 are being surveyed.

Remaining Parcel C Building/Sites Status

- At Parcel C, the Navy continues to characterize the interior drain lines, survey and remove the ventilation system (50 percent complete), and continued asbestos abatement and containment.
- At Parcel E, the Navy is drafting the internal draft Final Status Survey for the former 500 Series Area. The Navy is awaiting definitive data for one survey unit at the former Shacks 79/80 Area.

Parcel D-1, Phase I Report

- The draft Gun Mole Pier Phase I Radiological Remedial Action Completion Report (RACR) is under development and will be submitted in September 2013. The Navy is awaiting a free release letter from the California Department of Public Health (CDPH)

for the Building 383, 313/313A/322, and South Pier reports. Mr. Miya noted that he would check with CDPH and notify the Navy regarding the status of these sites. Mr. Yantos added that he will send Mr. Miya the dates that CDPH collected confirmation samples at the radiological sites.

- The Phase II work is scheduled to mobilize on September 5, 2013.

Parcel E, New Work

- Tetra Tech EC was awarded a contract to remove 7,600 linear feet of sanitary sewer and storm drain lines.
- The draft Work Plan will be submitted for regulatory review in late October.
- The Navy recommended reuse of the Building 518 sand as base material for surface land capping at HPNS and the Navy asked the regulators for concurrence with this recommendation.

Mr. Cooper asked about which landfills the Navy uses for the construction debris and the low-level radiological waste at Building 253. Mr. Yantos will report that information to the regulators.

3.0 Update on Parcel C Remedial Action (Tony Konzen, Navy)

RU-C1, 4, 5 Update

- Excavation work at 10-3 in RU-C5 started on July 18, 2013, and the final Technical Memorandum for Soil Excavations was issued on August 5, 2013. Excavation work continued in RU-C1 accessible areas beginning July 30, 2013.
- During excavation of 22-1 in RU-C1, the Navy encountered total petroleum hydrocarbons (TPH) within the excavation limits. The TPH occurrence corresponds to the TPH Program area of concern, 28-J. The Navy plans to over excavate this area to remove the TPH.
- The solvent line in Building 281 was flushed on August 19, 2013, and the Navy will complete the solvent line flush in Building 253 after the radiological cleanup. The Navy has also installed nine soil vapor monitoring points in soil-vapor extraction (SVE) Plume 3 (RU-C5) and eleven soil vapor monitoring points in SVE Plume 8 inside Building 253 (RU-C1).
- The Navy is currently removing concrete in Building 241 in preparation for excavation, and confirmation sample data are pending for excavations in RU-C1 and RU-C5.

Mr. Cooper noted that the agencies would like the Navy to not backfill the excavation areas until they have the opportunity to review the confirmation sample results for each excavation area. The Navy agreed that this is the plan for Parcel C excavations.

- Upcoming activities at RU-C1, RU-C4, and RU-C5 include installation of vapor monitoring and vapor extraction wells in areas where excavations have been completed and soil samples have met the cleanup goals. The Navy will also install groundwater

monitoring wells, conduct baseline groundwater sampling, begin in-situ bioremediation and zero-valent iron injections, and install the SVE systems.

RU-C2 Update

- The Navy injected microbial cultures and sodium lactate at Buildings 251 and 258 between July 9 and 16, 2013. The 1-month, post-injection sampling was completed the week of the BCT meeting.
- At Building 251, tetrachloroethylene (PCE) was detected above the action level and the Navy proposes to define the area of contamination by installing additional borings and monitoring wells, treating the area with in-situ remediation, and continuing to monitor concentrations and track effectiveness of the treatment.

Durable Covers

- The contract for the durable cover at Parcel C has been postponed until Fiscal Year 2014.

4.0 Parcel E-2 Shoreline Oil Seep Update (Lara Urizar, Navy)

Shoreline Seepage near Probe 86

- Materials found near the shoreline seepage were surveyed using a real-time instrument and did not have detectable readings. The BCT was notified of the seepage during their June 20, 2013 site visit.
- The Navy installed a temporary well and collected a water sample in June 2013. Sample results included detectable concentrations of diesel and motor oil range organics and ammonia as nitrogen. This area is designated for future excavation in the Draft Parcel E-2 Design Basis Report.
- The Navy installed a reactive core mat that consists of reactive organically modified bentonite media encapsulated between layers of permeable geotextile. The mat allows water to pass through while the organoclay absorbs the petroleum contamination. The mat was placed over the seep and covered with a minimum of 6 inches of imported sand. This area will be visually inspected until the remedial action starts in 2014.
- Two additional shoreline seepage areas were identified on August 27, 2013. The seepage areas will be addressed in the same manner and visually inspected until the remedial action in 2014 excavates these areas.

5.0 Parcel E Record of Decision Comments (Lara Urizar, Navy)

- The Navy would like to review agency comments on the Parcel E Record of Decision (ROD) concerning future soil gas surveys, refinement of the soil gas action levels, groundwater action levels for radionuclides, future cleanup along the shoreline and adjoining open space areas, and remedial action objectives for soil.
- DTSC wanted the soil gas surveys to be conducted: (1) in focused areas where concerns continue about residual volatile organic compounds (VOCs) in soil and groundwater, (2) at groundwater remediation areas after completion of the remedial action for groundwater, and (3) to evaluate the need for remedial action or reduction or retention of

an area requiring institutional control (ARICs) for VOCs. The Navy agreed to modify the text in the ROD.

Ms. Brownell asked if the entire area would be designated as an ARICs for VOCs. The Navy noted that this is their intention for Parcel E.

- USEPA requested that further clarification be documented on how soil gas action levels will be refined in the future. The Navy clarified that the action levels will be refined consistent with the approach used for Parcels B, D-1, G, and UC-2.
- The Water Board asked how acceptable action levels and risks are determined for radionuclides in groundwater. The Navy will revise the ROD to clarify that initial risks will compare thresholds to fixed standards, and if necessary, by statistical tests.
- DTSC asked if soil and shoreline sediment will be removed from the shoreline area in the northwestern corner of Parcel E. The Navy will revise Figure 10 to show this area and indicate that the Navy is currently performing a soil investigation.
- USEPA noted that the remedial goal for mercury in IR-02 and IR-03 should be the residential standard rather than the standards based on recreational or construction worker exposure scenarios. The Navy disagrees with changing the remedial goal for mercury since exposure is based on potentially complete exposure pathways which is recreational and construction work in this area. The feasibility study for the parcel evaluated mercury discharge to the San Francisco Bay and determined that two wells at IR-03 have concentrations of mercury that are of ecological concern. IR-03 is currently undergoing removal, treatment, containment, and monitoring actions that would prevent these discharges.
- The San Francisco Department of Public Health would like the soil remedial action objective revised to “minimize exposure” rather than “prevent exposure”. The Navy does not agree with the proposed change, because the terminology is consistent with the proposed plan for the parcels and other parcels on HPNS with similar remedies.
- The Navy will submit the ROD for an “over the-shoulder” review of the Navy’s response to comments and ROD revisions during the week of October 14, 2013, and the final report will be issued the week of November 5, 2013.

6.0 Parcel B Remedial Action SVE Update (Lara Urizar, Navy)

- The Navy has completed the durable cover at Parcel B, and installation of perimeter fencing is 90 percent complete. The contractor will demobilize from the site on September 6, 2013.
- The Navy is currently completing the optimization tests to achieve efficient SVE system operation. The objective is to optimize the mass removal efficiency during SVE operation. Operations performed to achieve the objective include determining operational limitations, estimating soil permeability and pore volume exchange rate, targeting areas with highest concentrations, determining ideal extraction rates, and evaluating treatment efficiency.
- The SVE system was initially focused on four quadrants to better assess VOC mass removal efficiency. The Navy collected data from each quadrant during system startup,

which allowed development of a strategy for expanding data collection beyond the limits of the quadrants. Performing cycling or rotation of the SVE wells between the quadrants will focus treatment by area and allow adequate time for rebound and recovery in each area.

- Optimization Test 1 results (1) determined upper vacuum and flow limit based on lithologic limitations and (2) evaluated groundwater upwelling by monitoring.
- Optimization Test 2 included step tests at all 26 SVE wells so that the Navy could plot vapor flow rate and relative photoionization detector readings versus the applied vacuum to determine optimal operating range.
- Optimization Test 3 was a multi-well flow field configuration test that demonstrated the blower capacity allows for targeting two quadrants simultaneously at next to optimal conditions. The Navy also evaluated passive air diffusion.
- Optimization Test 4 was a constant rate SVE test over 13 days. The radius of influence was measured and periodic sampling performed.

The agencies decided that they would like to visit the site to perform an inspection on September 16, 2013.

The regulators asked the Navy what would be done about the lead-based paint that is peeling off the buildings in Parcel B. The Navy responded that removal of paint chips from swales can be part of the operation and maintenance plan for Parcel B and then the Navy will address the larger problem basewide through the storm water pollution prevention plan.

7.0 Schedule Update (Keith Forman, Navy)

Mr. Forman noted that there are three date changes on this month's summary schedule summary. The Navy issued the draft final Finding of Suitability to Transfer for UC-1 and UC-2. The date for the final Parcel E ROD has changed to November 2013. The dates for the Parcel E-2 draft final and final Non-radiological Remedial Design have changed to January and May 2014, respectively. The dates for the draft and final Parcel E-2 Remedial Action Work Plan have changed to October 2014 and February 2015, respectively.

8.0 Community Involvement Update (Keith Forman, Navy)

We discussed doing a community meeting on Parcel E-2 in December and doing the year in review community meeting in January 2014.

August Achievements

- The Navy conducted a bus tour on August 24, 2013. The Navy advertised the tour via the information hotline, fliers mailed to community organizations and hand delivered to local residents, advertisements in Bayview Footprints, and the email distribution list.
- The morning tour had 22 of 25 community members attend, and the afternoon tour had 15 of 26 attend. The Navy gave a poster board presentation before the tour.

September Goals and Objectives

- The Navy will participate in the California Coastal Cleanup Day on September 21, 2013, at Heron's Head Park to distribute information on HPNS.
- The next bus tour will be held on October 26, 2013.
- The Navy will plan to distribute the Quarterly Progress Update.

9.0 Action Items/Future Meetings (Keith Forman, Navy)

The next BCT meeting will be held on September 26, 2013, at the CH2M HILL office in Oakland, California. Action items are summarized below and included as Attachment C:

- Mr. Yantos will send Mr. Miya the dates that CDPH collected radiological confirmation samples.
- Mr. Miya will discuss the pending radiological free release letters with CDPH and report to the Navy.
- Mr. Yantos will send an email to the regulatory agencies with information on the landfills that the Navy uses for construction debris and low-level radiological waste from Buildings 253 and 211.
- The regulatory agencies will send the Navy an email regarding their concurrence with the Navy's recommendations outlined in the July 10, 2013, letter report regarding the Building 518 sand.

ATTACHMENT A

HUNTERS POINT NAVAL SHIPYARD MEETING ATTENDANCE SHEET

Topic: BCT Meeting
Location: CH2M HILL's Office
155 Grand Avenue, Suite 800
Oakland, CA
Date/Time: August 29, 2013/10:00 p.m.

Organization	Name	Phone Number	E-Mail Address	Present
Navy	Keith Forman	619-532-0913	keith.s.forman@navy.mil	X
	Lara Urizar	619-532-0960	lara.urizar.ctr@navy.mil	X
	Chris Yantos	619-532-0952	christopher.yantos.ctr@navy.mil	X
	Matt Slack	757-887-4212	matthew.slack@navy.mil	
	Frank Fernandez	510-749-5936	franklin.d.fernandez@navy.mil	
	Deb Theroux	619-532-0919	debra.theroux@navy.mil	
	Catherine Haran	(619) 532-0787	Catherin.Haran@navy.mil	X
	Danielle Janda	619-532-0796	danielle.janda@navy.mil	X
	Tony Konzen	619-532-0924	anthony.konzen.ctr@navy.mil	X
	Jeremy Schwartz	510-521-8672	jeremy.m.schwartz@navy.mil	
	Mahbub Hussain		Mahbub.hussain@agse.us.	X
USEPA	Craig Cooper	415-947-4148	cooper.craig@epa.gov	X
	Jackie Lane	415-972-3236	lane.jackie@epa.gov	
	Yvonne Fong	415-947-4117	fong.yvonne@epa.gov	
DTSC	Ryan Miya	510-540-3775	ryan.miya@dtsc.ca.gov	X
Water Board	Ross Steenson	510-622-2445	rsteenson@waterboards.ca.gov	
	Tina Low	510-622-5682	tlow@waterboards.ca.gov	X
CDPH	Tracy Jue	916-324-4808	tracy.jue@cdph.ca.gov	
	Jeff Wong	510-620-3423	jeff.wong@cdph.ca.gov	X
	Larry Morgan			
	Roger Lupo	916-440-7955	roger.lupo@cdph.ca.gov	

Organization	Name	Phone Number	E-Mail Address	Present
	Ron Pilorin			
CDFW	Charlie Huang			
	Tami Nakahara			
City of SF	Amy Brownell	415-252-3967	amy.brownell@sfdph.org	X
Treadwell and Rollo/Langan	Sigrida Reinis	415-955-9040	sreinis@langan.com	X
	Dorinda Shipman	415-955-5262	dshipman@langan.com	
	Christopher Glenn	510-974-7074	cglenn@langan.com	
	Christina Rain		crain@langan.com	X
Geosyntec	Jeff Austin	415-218-0027	jasustin@geosyntec.com	X
BVHP/Lennar	Steve Rottenborn	408-458-3205	srottenborn@harveyecology.com	
Tech Law Inc., <i>USEPA contractor</i>	Karla Brasaemle	415-762-0566	kbrasaemle@techlawinc.com	X
	Mary Snow			
	Mark Pantoja	415-762-0565	mpantoja@techlawinc.com	
Arc Ecology	Martha Walters		rosewalt@aol.com	X
BCDC	Rafael Montes	415-352-3670	rafaelm@bcdca.gov	
<i>Navy Contractors</i>				
Tetra Tech EC	Tim Mower	313-312-8874	tim.mower@tetrattech.com	X
	Bill Dougherty	415-216-2731	bill.dougherty@tetrattech.com	
CE2	Bruce Rucker	925-400-4586	rucker@ce2corp.com	
Kleinfelder	Eric Johansen	619-694-5516	ejohansen@kleinfelder.com	X

Organization	Name	Phone Number	E-Mail Address	Present
KCH	Leslie Lundgren (CH2M HILL)	415-541-7110	leslie.lundgren@ch2m.com	X
	Jamie Hamm	415-819-4971	jamie.hamm@ch2m.com	X
	Ted Tyler	602-790-2492	etyler@kleinfelder.com	
	Emily Steinkamp	510-628-9000	esteinkamp@kleinfelder.com	
	Doug Gilkey	619-694-5523	dgilkey@kleinfelder.com	
	Scott Wolfskill	858-320-2235	swolfskill@kleinfelder.com	
ERRG	Doug Bielskis	925-726-4119	doug.bielskis@errg.com	X
	John Sourial	415-848-7103	john.sourial@errg.com	X
ITSI	Jim Schollard	925-946-3107	jschollard@itsi.com	
	Brett Womack	925-250-8077	bwomack@itsi.com	X
	Ken Leonard	925-946-3263	kleonard@itsi.com	
	Arvind Archarya	510-719-6858	aacharya@itsi.com	
	John Baur	925-946-3212	jbaur@itsi.com	
Shaw Group	Wayne Akiyama	925-288-2003	wayne.akiyama@shawgrp.com	
	Ulrika Messer	619-241-9451	ulrika.messer@shawgrp.com	X
AMEC	Alfonso Ang	415-278-2108	alfonso.ang@amec.com	
	Jeff Fenton	707-793-3832	jeffery.fenton@amec.com	
	Ray Hendry	303-807-4421		
CDM Smith	Tamzen Macbeth	208-569-5147	macbethw@cdmsmith.com	
Alliance	Tessa McRae	619-398-3220	tmcrae@onesullivan.com	
	Wenqian Dou	415-321-1785	wdou@onesullivan.com	
	Bob Hunt	619-672-2796	rhunt@onesullivan.com	X
Arcadis	Scott Morris	619-291-7800 x21	scott.morris@arcadis-us.com	

Organization	Name	Phone Number	E-Mail Address	Present
	Bill Beaman	510-596-9524	william.beaman@arcadis-us.com	
CKY, Inc.	Howard Wittenberg		howard@ckyinc.com	
Cabrera/Insight	Mitra Fattahipour		MFattahipour@ieeci.com	

ATTACHMENT B HUNTERS POINT NAVAL SHIPYARD DOCUMENT TRACKING MATRIX

August 29, 2013

Item	Parcel	Document Name	Submittal Date	Expected Date for Comments	Notes	Agency Submittal of Comments			
						EPA	DTSC	Water Board	City of SF
Documents Historically Reviewed									
1	Basewide	Draft Third Five Year Review of RAs	5/14/13	6/28/13		6/24/13	6/28/13	6/28/13	6/18/13; 7/1/13
2	E-2	Final RACR for PCB TCRA - Phase 2	5/13/13	n/a					
3	E-2	Final Work Plan for Landfill Gas Survey	5/13/13	n/a					
4	E	Draft Final IR 03 NAPL Pilot Study Work Plan (redline)	5/20/13	n/a			5/21/13		
5	E	Final Work Plan for Pot Hole Characterization	5/31/13	n/a					
6	E	Final Soil Characterization Tech Memo	6/3/13	n/a					
7	Basewide	Abstract for Sanitary and Storm Sewer Drain Removal Conducted after September 1, 2012	6/17/13	n/a					
8	C	Final Remedial Action Work Plan for RU-C1, RU-C4, RU-C5, and Building 241 Area	6/20/13	n/a		7/17/13			
Document Review Period Recently Completed									
1	D-1	Final, Final Status Survey Report, South Pier Area	6/24/13	7/24/13					
2	E	Final NAPL Treatment Pilot Study Work Plan, IR 03	6/25/13	n/a					
3	F	Draft Radiological Data Gap Investigation Tech Memo #2b	6/27/13	7/29/13					7/19/13 No

ATTACHMENT B HUNTERS POINT NAVAL SHIPYARD DOCUMENT TRACKING MATRIX

August 29, 2013

Item	Parcel	Document Name	Submittal Date	Expected Date for Comments	Notes	Agency Submittal of Comments			
						EPA	DTSC	Water Board	City of SF
									Comment
4	UC-3	Draft ROD	6/28/13	8/15/13		8/1/13	8/9/13	8/8/13	
5	E	Draft ROD	6/28/13	8/15/13		7/24/13	and 8/15/13	8/15/13	8/16/13
6	Basewide	Basewide Stormwater Annual Report (2012-2013)	6/29/13	n/a					
7	C	Final Work Plan RU-C1, C4, C5 and Building 241	7/8/13	n/a		7/17/13			
8	E-2	Monthly Landfill Gas Monitoring Letter Report	7/11/13	n/a					
9	C	Revised RTCs on Draft TM for RU-C1, C4, and C5	7/12/13	7/24/13		7/17/13	7/18/13	7/18/13	
Documents Currently Under Review									
1	E-2	Draft Remedial Design	6/28/13	8/26/13		8/26/13	8/27/13		
2	E-2	Quarterly Landfill Gas Monitoring Report, Second Quarter 2013	7/26/13						
3	E-2	Annual Landfill Cap Operation and Maintenance Report for 2012-2013	7/30/13	n/a					
4	G	Final Technical Memorandum for CERCLA Tank Closure Sampling	8/2/13	n/a					
5	D-1	Final Execution Plan, Phase II	8/5/13	n/a					
6	Basewide	Final Radiological Management Plan	8/5/13	n/a					

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August 29, 2013

Item	Parcel	Document Name	Submittal Date	Expected Date for Comments	Notes	Agency Submittal of Comments			
						EPA	DTSC	Water Board	City of SF
7	C	Final TM for RU-C1, 4, and 5	8/5/13	n/a					
Documents for Upcoming Review (next 3 months)									
1	D-1	Draft RAD RACR - North	9/10/13	30 days from submittal date	Date tentative				
2	F	Final RAD Data Gap Investigation - Tech Memo #2b	9/16/13	30 days from submittal date	Date tentative				
3	D-1	Draft RAWP (durable cover)	9/16/13	45 days from submittal date	Date tentative				
4	Basewide	Draft Final Third Five Year Review of Remedial Actions	9/19/13	30 days from submittal date	Date tentative				
5	UC-1	Draft SVI Work Plan Addendum	9/19/13	9/26/13	Date tentative				
6	E	ISTR Final IR-03 Pilot Study Design	9/19/13	n/a	Date tentative				
7	Basewide	Semiannual Groundwater Monitoring Report (January - July 2013)	10/1/13	n/a	Date tentative				
8	B	Annual Operation and Maintenance Plan for IR-7/18	10/1/13	n/a	Date tentative				
9	Basewide	Final Third Five Year Review of Remedial Actions	10/29/13	n/a	Date tentative				
10	E	Draft Pot-Hole Area Tech Memo	11/15/13	12/16/13	Date tentative				

ATTACHMENT B HUNTERS POINT NAVAL SHIPYARD DOCUMENT TRACKING MATRIX

August 29, 2013

Item	Parcel	Document Name	Submittal Date	Expected Date for Comments	Notes	Agency Submittal of Comments			
						EPA	DTSC	Water Board	City of SF
CDPH	California Department of Public Health		n/a		Not applicable				
DTSC	Department of Toxic Substances Control		RAD RACR		Radiological Remediation Action Completion Report				
EPA	U.S. Environmental Protection Agency		RI		Remedial investigation				
RTC	Response to comment		SF		San Francisco				
FOSL	Finding of suitability to lease		TCRA		Time critical removal action				
FOST	Finding of suitability to transfer		TPH		Total petroleum hydrocarbon				
FS	Feasibility study		Water Board		San Francisco Bay Regional Water Quality Control Board				
FSS	Final Status Survey								

ATTACHMENT C
HUNTERS POINT NAVAL SHIPYARD BASE REALIGNMENT AND CLOSURE CLEANUP TEAM ACTION ITEMS

Item No.	Action Item	Person Authoring the Action Item	Due Date	Resolution Status
New Action Items				
1	The Navy will send DTSC an email following the BCT meeting with the dates CDPH collected their confirmation RAD samples.	Navy – Chris Yantos		Pending
2	DTSC will follow up with CDPH regarding the outstanding RAD free-release letters and report back to the Navy.	DTSC – Ryan Miya		Pending
3	The regulatory agencies will send the Navy an email concerning the Navy's recommendations outlined in their July 10, 2013 letter report for the Building 518 sand.	Regulatory Agencies		Pending
4	The Navy will send the USEPA information on which landfill(s) are accepting the low-level RAD and construction debris waste from the work inside Buildings 253 and 211.	Navy – Chris Yantos		Pending